

the fourth pair of magnetic sensors is a magnetic sensor included in one of the first pair of magnetic sensors or the second pair of magnetic sensors.

**11.** The apparatus of claim **1**, wherein at least one sensor from the first pair of magnetic sensors is positioned a different distance from a center point of the target measurement zone than the other sensor from the first pair of magnetic sensors.

**12.** The apparatus of claim **1**, wherein at least some of the sensors from the first pair of magnetic sensors and the second pair of magnetic sensors are positioned along a circle with a center at a center point of the target measurement zone.

**13.** The apparatus of claim **1**, wherein the second pair of magnetic sensors is positioned such that the line between the second pair of magnetic sensors bisects the target measurement zone.

**14.** A method of measuring current through a wire, the method comprising:

calculating a first differential signal value based at least in part on output signals from a first pair of magnetic sensors;

calculating a second differential signal value based at least in part on output signals from a second pair of magnetic sensors; and

deriving a measure of current flowing through a wire positioned within a target measurement zone based at least in part on the first differential signal and the second differential signal, so as to reduce an impact of one or more stray fields on the measure of current relative to using one of the first differential signal or the second differential signal.

**15.** The method of claim **14**, wherein the first pair of magnetic sensors comprises a first magnetic sensor and a second magnetic sensor positioned such that a line between

the first magnetic sensor and the second magnetic sensor is substantially tangential to the target measurement zone.

**16.** The method of claim **14**, wherein the second pair of magnetic sensors comprises a third magnetic sensor and the fourth magnetic sensor positioned such that a line between the third magnetic sensor and the fourth magnetic sensor crosses through the target measurement zone.

**17.** An apparatus for measuring current flow through a wire, the apparatus comprising:

a housing with an opening configured to receive a wire, wherein the opening corresponds to a target measurement zone for measuring a current flowing through the wire when the wire is positioned within the opening;

a first set of sensors positioned a first distance from a center point of the target measurement zone;

a second set of sensors positioned a second distance from the center point of the target measurement zone; and

a hardware processor in communication with the first set of sensors and the second set of sensors, the hardware processor configured to derive a measure of the current flowing through the wire based on outputs from the first set of sensors and the second set of sensors.

**18.** The apparatus of claim **17**, wherein the first set of sensors comprises anisotropic magnetoresistance (AMR) sensors.

**19.** The apparatus of claim **17**, wherein a first sensor from the first set of sensors and a second sensor from the second set of sensors are positioned such that a direct line between the first sensor and the second sensor is substantially tangential to the target measurement zone.

**20.** The apparatus of claim **17**, wherein a first sensor from the first set of sensors and a second sensor from the second set of sensors are positioned such that a direct line between the first sensor and the second sensor crosses through the target measurement zone.

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